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IN THE DRAWINGS:

Please substitute the attached Substitute Drawing Sheet for Figs. 7(A)-7(C).

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REMARKS

Claims 1-30 remain pending in this application. The drawings have been corrected as required by the Office action, and claims 9 and 15 have been amended to correct the informalities noted. Additionally, each of the independent claims has been amended so as to set forth the features of the present invention in a more explicit manner. Reconsideration of this application is requested.

The rejection of claims 1, 4-8, 13-16, 18-21, 28 and 29 as being obvious over Kovacs, Jr. et al., U.S. Patent No. 4,503,331 ("Kovacs") in view of Ohike et al., U.S. Patent No. 5,691,538 ("Ohike"); claims 2 and 3 as being obvious over Kovacs in view of Ohike and further in view of Lonni et al., U.S. Patent No. 5,777,332 ("Lonni"); claims 9 and 22 as being unpatentable over Kovacs in view of Ohike and further in view of Hug et al., U.S. Patent No. 5,444,252 ("Hug"); claims 10, 23 and 24 as being unpatentable over Kovacs in view of Ohike and further in view of Stephan, U.S. Patent No. 5,677,535; claims 11 and 12 as being anticipated by Stephan; claim 17 as being unpatentable over Kovacs in view of Ohike and further in view of Maor, U.S. Patent No. 5,811,813; claims 25 and 25 as being unpatentable over Maor in view of Stephan; and claims 27 and 30 as being anticipated by Kovacs, are respectfully traversed to the extent that these grounds of rejection may be applied to claims 1-30 as amended herein.

The present specification discloses a number of existing methods for accomplishing non-circular orbits, as shown in Figs. 7(A) – 7(C) and described at pages 2 and 3. Kovacs (cited at page 2 of the specification) discloses at col. 3, lines 48-55 the prior art method shown in Fig. 7(B), and at col. 3, line 63 – col. 4, line 2, discloses the prior art method as shown in Fig. 7(A). Kovacs fails to disclose the predetermination or calculation of a non-circular orbit by moving first and second detectors toward a patient to positions where proximity points are sensed by sensor elements, and then determining an orbital path using the detected positions.

Ohike discloses the use of distance sensors to measure the distance between the object under examination and the detectors; however Ohike also does not disclose the predetermination or calculation of a non-circular orbit by moving first and second detectors toward a patient to positions where proximity points are sensed by sensor

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elements, and then determining an orbital path using the detected positions, as set forth in the claims.

Stephan discloses the use of three sensing planes 13, 14 and 15 across the face of a collimator (Fig. 2), such that an algorithm keeps the patient within the boundaries of planes 13 and 14, and away from boundary 15. Again, this is the same prior art method as described in the present application with respect to Fig. 7(A). Stephan does not store proximity positions of detectors in order to determine or calculate an orbital path to be used by the apparatus in moving the detectors about the patient to acquire data.

Lonn discloses moving a camera and patient table relative to one another to allow an operator to define a non-circular orbit. Again, this is shown in Fig. 7(B) of the present application. Lonn fails to cure the fundamental shortcomings of Kovacs and Ohike with respect to the independent claims and therefore the addition of Lonn to the proposed combination of prior art cannot render the claims obvious.

Hug, cited for disclosing the orientation of detectors at 90 degree angles to each other, similarly fails to cure the deficiencies of Kovacs and Ohike with respect to the independent claims, and as such cannot render the claims obvious.

Maor does disclose dual detector faces arranged in a V configuration, and parallel hole collimation. However, these features do not make up for the teachings that are missing from the primary references to Kovacs and Ohike. Further, no combination of Maor with Stephan would result in the invention as set forth in claims 25 and 26. Neither Maor nor Stephan teach the use of stored proximity positions as sensed by proximity sensors to calculate a non-circular orbit about a patient.

Conclusion

In view of the foregoing, claims 1-30 are submitted to define subject matter that is patentable over the prior art of record, whether considered individually or in any combination thereof. Accordingly, favorable reconsideration of this application and the issuance of a Notice of Allowance are earnestly solicited.

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